

Notice of Allowability

Application No.

10/539,929

Examiner

Eric S. McCall

Applicant(s)

ESER ET AL.

Art Unit

2855

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the application as filed with the preliminary amendment dated June 17, 2005.
2. ☒ The allowed claim(s) is/are 11-20.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date June 17, 2005
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DEVICE AND METHOD FOR IDENTIFYING DEFECTS
IN A FUEL INJECTION SYSTEM

REASONS FOR ALLOWANCE

The following is an Examiner's statement of reasons for allowance:

Independent claims 11, 18, and 19 have been found to be allowable over the prior art because the prior art fails to teach or suggest a method for identifying defects in a fuel injection system wherein the fuel injection system includes a high-pressure pump, a fuel accumulator, a fuel pressure control valve, and a pressure sensor for recording the pressure prevailing in at least one fuel accumulator, comprising:

identifying the occurrence of at least one defect in the fuel injection system by recording a pressure in the fuel accumulator that is too low and using a high-frequency component of a first signal characterizing the pressure course in the fuel accumulator over a time in order to isolate the source of the defect; and

concluding that there is a defect in the low-pressure area if the pressure determined in the fuel accumulator is lower than the desired pressure, or concluding that there is a defect in the drive of the high-pressure pump if the pressure determined in the fuel accumulator is lower than the pressure that is actually present in the low-pressure area,

in combination with the remaining limitations of claim.

Claims 12-17 have been found to be allowable over the prior art due to the claims' dependency on claim 11.

Independent claim 20 has been found to be allowable over the prior art because the prior art fails to teach or suggest a method for identifying defects in a fuel injection system, comprising:

identifying the occurrence of at least one defect in the fuel injection system by recording a pressure in the fuel accumulator that is too low and using a high-frequency component of a first signal characterizing the pressure course in the fuel accumulator over a time in order to isolate the source of the defect; and

concluding that there is a defect in the low-pressure area if the pressure determined in the fuel accumulator is lower than the desired pressure, or concluding that there is a defect in the drive of the high-pressure pump if the pressure determined in the fuel accumulator is lower than the pressure that is actually present in the low-pressure area,

in combination with the remaining limitations of claim.

Any comments considered necessary by the Applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

CONTACT INFORMATION

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Eric S. McCall whose telephone number is (571) 272-2183.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Eric S. McCall
Primary Examiner
Art Unit 2855
July 20, 2006

